



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,649	09/13/2002	Aws Nashef	8830-27	3544

23973 7590 12/07/2004

DRINKER BIDDLE & REATH
ONE LOGAN SQUARE
18TH AND CHERRY STREETS
PHILADELPHIA, PA 19103-6996

EXAMINER

GIBSON, ROY DEAN

ART UNIT	PAPER NUMBER
----------	--------------

3739

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,649

Applicant(s)

NASHEF ET AL.

Examiner

Roy D. Gibson

Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,13-24 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,13-15,19-24,26,29 and 30 is/are rejected.
- 7) ☒ Claim(s) 16-18,27 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Entry of Amendment

Applicant's amendment filed October 7, 2004 is acknowledged. Claims 2-12 and 25 have been canceled, and claims 29-30 have been added by the Applicant, therefore, claims 1, 13-24 and 26-30 are currently pending.

Prior Rejections or Objections

The following comments pertain to the rejections or objections in the most recent Office action mailed on April 6, 2004. Rejections under 35 U.S.C. 112, 102 and 103 are withdrawn, however, new grounds of rejection are presented below.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 13, 14, 19-22, 24, 26 and 29-30 are rejected under 35 U.S.C. 102(e) as anticipated by Abboud et al. (6,562,010).

As to claims 1 and 13, Abboud et al disclose a catheter (10) having a distal end and a wall, the catheter comprising a heat transfer device (36) located approximately at its distal end, wherein the heat transfer device is a flexible metal film (thin film resistance heater) having at least one electrical resistor flow path thereon or

Art Unit: 3739

therethrough, wherein the film is locatable around the catheter wall and wherein the device includes at least one sensor (thermocouple # 40, Figures 1 & 2A and col. 2, lines 21-67).

Further to claim 14, it would be inherent in the design of the thin film resistance heater, that it be electrically insulated to prevent shorting between the elements of the heater.

Further to claims 19-22 and 24, it would be inherent in the design of the catheter that the wires or conductors that extend from the proximal end to the thin film heater are located in at least a portion of the wall (Figure 2A), that the wire would typically be copper, that the catheter wall include at least one set of wires or conductors to complete the circuit and that each wire within the catheter wall is easily exposable for installation and repair or replacement.

Further to claim 21, this is a product-by-process claim [see MPEP 2113.5 (p)], and, therefore, is not given any patentable weight. In addition it could be argued that this co-extrusion is merely an obvious design choice.

Further to claim 26, Abboud et al. disclose the catheter has a diameter of approximately 3-9F, which overlaps the claimed range of 3-5F (col. 1, lines 44-48).

Further to claim 29, Abboud et al. disclose the catheter comprises a temperature sensing element (40) located at the distal end of the catheter (col. 2, lines 59-60).

As to claim 30, Abboud et al. disclose a catheter having all structural elements as detailed above and which inherently is capable of measuring cardiac output data as claimed.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abboud et al. Although Abboud et al. fails to specifically disclose the catheter wall has three sets of wires, each set comprising two wires, the examiner maintains that numerous prior art suggests providing multiple or redundant sets of wires to ensure reliability of the performance of the sensors or resistors, etc. over time and after repeated use.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abboud et al. in view of Morris (5,380,320). Abboud et al. fail to disclose the electrically insulating coating applied to the thin film heater at the distal end of the catheter. But, Morris disclose an electrosurgical instrument wherein the electrode is electrically insulated by the application of a coating of 2-3.5 mil inches of parylene C (col. 6, lines 1-26). Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art to look to the teaching of Morris, to determine the details of an appropriate coating to electrically insulate the thin film heater to prevent shorting during use.

Allowable Subject Matter

Claims 18-18 and 27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

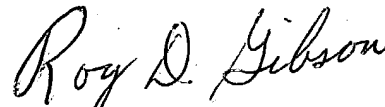
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dobak et al. (US 2001/0037812) disclose a cryosurgical probe with a sheath and a heater/RTD constructed of foil laminated between two sheets of polyimide film.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy D. Gibson whose telephone number is 571-272-4767. The examiner can normally be reached on M-F, 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3739

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script that reads "Roy D. Gibson".

Roy D. Gibson
Primary Examiner
Art Unit 3739

December 6, 2004